IN THE

Supreme Court of the United States

October Term, 1970

No. 30, Original

Supreme Court, U. S.
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STATE OF MICHIGAN, *Plaintiff*

v.

STATE OF OHIO, *Defendant*

REPORT OF ALBERT B. MARIS, *Special Master*

June 30, 1971

THE LEGAL INTELLIGENCER, 66 NORTH JUNIPER STREET, PHILA., PA. 19107

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To the Chief Justice and Associate Justices of the Supreme Court of the United States:

The present controversy involves the location of that portion of the boundary line between the States of Ohio and Michigan which runs through the waters of Lake Erie to the eastward of a point which was the location of the most northerly cape of Maumee Bay in 1836. That cape, which has long since eroded to the north, was the eastern terminus of the land boundary between these states. Because of the erosion of the north cape of Maumee Bay the controversy also involves the precise position which that cape occupied in 1836.

The boundary between these states was established by the Congress by the Act of June 15, 1836, 5 Stat. 49, which provided for the admission of the State of Michigan into the Union. That Act provided "That the northern boundary line of the State of Ohio shall be established at, and shall be a direct line drawn from the southern extrem-

ity of Lake Michigan, to the most northerly cape of the Maumee (Miami) bay, after that line, so drawn, shall intersect the eastern boundary line of the State of Indiana; and from the said north cape of the said bay, northeast to the boundary line between the United States and the province of Upper Canada, in Lake Erie; and thence, with the said mentioned line, to its intersection with the western line of the State of Pennsylvania." The people of the State of Michigan, through the vote of a convention of elected delegates on December 15, 1836, assented to the boundary line with the State of Ohio established by the Act of June 15, 1836, an assent which was required by that Act as a condition of admission to the Union. Nonetheless, the two states do not agree upon the meaning and application of the words "from the said north cape of the said bay, northeast" as used in the Act of 1836 to indicate the bearing of the boundary through the waters of Lake Erie eastward of the north cape of Maumee Bay. The State of Michigan contends that "from the said north cape . . . , northeast" as used in this Act should be construed to mean in a northeasterly direction continuing on the same course or bearing as the land portion of the boundary line from the Indiana line to the north cape of Maumee Bay. The State of Ohio, on the other hand, contends that "northeast" as used in the Act of 1836 means due northeast, i.e., North 45° East. The controversy thus involves the question of jurisdiction over a triangular segment of Lake Erie waters and lake bed said to contain about 200 square miles. It also necessarily involves, as I have above indicated, the precise location which was occupied by the most northerly cape of Maumee Bay in 1836 before it eroded to its present more northerly location.

On April 17, 1967 leave was granted by the Court to the State of Michigan to file its complaint against the State of Ohio, 386 U.S. 1001, and on June 16, 1967 the State of Ohio filed its answer to the complaint. The complaint alleges that the boundary line in Lake Erie between the State of Michigan and the State of Ohio from Post 71, the

most easterly existing land boundary monument, consists of a direct line from Post 71 projected across Maumee Bay to the position in 1836 of the most northerly cape of Maumee Bay and extends thence, on a continuation of the original course from the most southerly extreme of Lake Michigan through Lake Erie to an intersection with the international boundary in that lake and it seeks a declaration and determination to that effect. The answer denies that the boundary line contended for by the State of Michigan is the true line and asks the Court to establish that the boundary between the States of Ohio and Michigan from the most northerly cape of Maumee (Miami) Bay to the international boundary in Lake Erie between the United States and Canada is a line run from the most northerly cape of Maumee (Miami) Bay on a course North 45° East to the international boundary line. Both complaint and answer ask for a determination of the precise location of the most northerly cape of Maumee Bay as it existed in 1836. The complaint, in addition, asks for a declaration confirming the jurisdiction and sovereignty of the State of Michigan to that part of Lake Erie lying northerly of the boundary line which it claims, and also confirming its ownership of the bottom lands of Lake Erie lying northerly of that line, including all minerals and other natural resources appertaining thereto.

Issue having thus been joined, the Court on May 8, 1967, appointed the undersigned as special master with authority to summon witnesses, issue subpoenas, take such evidence as may be introduced and such as he may deem it necessary to call for, and to submit such reports as he may deem appropriate. 386 U.S. 1029. Pursuant to the appointment, I held a prehearing conference with counsel in Philadelphia on September 20, 1967 and formal hearings to receive evidence in Toledo on October 18, 1967, in Philadelphia on October 18, 1968 and again in Toledo on June 22, 1970. Oral argument by counsel on proposed findings and conclusions took place in Philadelphia on April 1, 1971. I also, in the company of counsel, inspected

the locations of Posts 70 and 71 near the eastern end of the Ohio-Michigan land boundary line and visited Turtle Island off Maumee Bay.

From the evidence, both oral and documentary, received at the hearings and after consideration of matters of which judicial notice may be taken, I have made the findings of fact which follow:

FINDINGS OF FACT

1. The States of Ohio and Michigan were each formed from parts of the Northwest Territory which consisted of lands north of the River Ohio and west of the State of Pennsylvania to the River Mississippi and bounded on the north by the boundary line between the United States and the former Province of Upper Canada. Upon recommendation of the Continental Congress those states laying claim to this territory relinquished their claims and ceded the unappropriated lands to the United States. On October 10, 1780 the Continental Congress resolved that these unappropriated lands be settled and formed into distinct republican states, which should thereafter become members of the federal Union. Journals of the Continental Congress, vol. 18 (1780) page 915 (Washington, Government Printing Office, 1910).

2. The cession by the Commonwealth of Virginia of its territory northwest of the River Ohio to the United States on March 1, 1784 was made "upon condition that the territory so ceded shall be laid out and formed into states, containing a suitable extent of territory, not less than one hundred, nor more than one hundred and fifty, miles square, or as near thereto as circumstances will admit". Hening's Statutes of Virginia, vol. 11 (1782-1784) page 572.

3. On July 7, 1786 the Continental Congress adopted the following resolution:

> "Whereas it appears, from the knowledge already obtained of the tract of Country lying Northwest of the river Ohio, that the laying it out and forming it into states of the Extent mentioned in the resolution of Congress of the 10th of October, 1780, and in one of the conditions contained in the cession of Virginia, will be productive of many and great inconveniences: That by such a division of the country, some of the new states will be deprived of the advantages of Navigation, some will be improperly inter-

sected by lakes, rivers and Mountains, and some will contain too great a proportion of barren unimprovable land, and of consequence will not for many years, if ever, have a sufficient number of inhabitants to form a respectable government, and entitle them to have a seat and voice in the federal council: And whereas in fixing the limits and dimensions of the new states, due attention ought to be paid to natural boundaries, and a variety of Circumstances which will be pointed out by a more perfect knowledge of the country, so as to provide for the future growth and prosperity of each state, as well as for the accommodation and security of the first adventurers. In order therefore that the ends of government may be attained, and that the states which shall be formed, may become a speedy and sure accession of strength to the Confederacy:

"*Resolved*, That it be, and it hereby is recommended to the legislature of Virginia, to take into consideration their Act of cession, and revise the same, so far as to empower the United States in Congress assembled, to make such a division of the territory of the United States lying Northerly and westerly of the river Ohio, into distinct republican states, not more than five nor less than three, as the situation of that country and future circumstances may require; which states shall hereafter become members of the federal Union, and have the same rights of sovereignty, freedom and independence as the original states, in conformity with the resolution of Congress of the 10th October, 1780." Journals of the Continental Congress, vol. 30 (1786) pages 393-394 (United States Government Printing Office, Washington, 1934).

4. On July 13, 1787 the Continental Congress enacted "An Ordinance for the government of the territory of the United States North West of the river Ohio," declaring as one of the Articles of the compact between the original

states and the people and future states in that territory the following:

"Article the Fifth. There shall be formed in the said territory, not less than three nor more than five States, and the boundaries of the States, as soon as Virginia shall alter her act of cession and consent to the same, shall become fixed and established as follows, to wit: The Western State in the said territory, shall be bounded by the Mississippi, the Ohio, and Wabash rivers, a direct line drawn from the Wabash and post Vincents due North to the territorial line between the United States and Canada, and by the said territorial line to the lake of the Woods and Mississippi. The middle State shall be bounded by the said direct line, the Wabash, from post Vincents to the Ohio; by the Ohio, by a direct line drawn due North from the mouth of the Great Miami to the said territorial line, and by the said territorial line. The eastern State shall be bounded by the last mentioned direct line, the Ohio, Pennsylvania, and the said territorial line; provided however, and it is further understood and declared, that the boundaries of these three States, shall be subject so far to be altered, that if Congress shall hereafter find it expedient, they shall have authority to form one or two States in that part of the said territory which lies north of an east and west line drawn through the southerly bend or extreme of lake Michigan; and whenever any of the said States shall have sixty thousand free Inhabitants therein, such State shall be admitted by its Delegates into the Congress of the United States, on an equal footing with the original States, in all respects whatever; and shall be at liberty to form a permanent constitution and State government, provided the constitution and government so to be formed, shall be republican, and in conformity to the principles contained in these Articles; and so far as it can be consistent with the general interest of

the Confederacy, such admission shall be allowed at an earlier period, and when there may be a less number of free Inhabitants in the State than sixty thousand." Journals of the Continental Congress, vol. 32 (1787) pages 342-343 (United States Government Printing Office, Washington, 1936).

5. By an Act of December 30, 1788 the Commonwealth of Virginia ratified and confirmed the fifth article of the Northwest Territory Ordinance of July 13, 1787 "any thing to the contrary, in the deed of cession of the said territory by this commonwealth to the United States, notwithstanding." Hening's Statutes of Virginia, vol. 12 (1785-1788) pages 780-781.

6. By section 1 of "An act to divide the territory of the United States northwest of the Ohio, into two separate governments," approved May 7, 1800, the Congress created the Indiana Territory out of that part of the Northwest Territory lying "to the westward of a line beginning at the Ohio, opposite to the mouth of Kentucky river, and running thence to Fort Recovery, and thence north until it shall intersect the territorial line between the United States and Canada." 2 Stat. 58-59.

7. On April 30, 1802 the Congress enacted "An Act to enable the people of the Eastern division of the territory northwest of the river Ohio to form a constitution and state government, and for the admission of such state into the Union," section 2 of which provided:

> "*And be it further enacted*, That the said state shall consist of all the territory included within the following boundaries, to wit: bounded on the east by the Pennsylvania line, on the south by the Ohio river, to the mouth of the Great Miami river, on the west by the line drawn due north from the mouth of the Great Miami, aforesaid, and on the north by an east and west line, drawn through the southerly extreme of Lake Michigan, running east after intersecting the due north line aforesaid, from the mouth of the Great

Miami, until it shall intersect Lake Erie, or the territorial line, and thence with the same through Lake Erie to the Pennsylvania line, aforesaid: *Provided*, that Congress shall be at liberty at any time hereafter, either to attach all the territory lying east of the line to be drawn due north from the mouth of the Miami, aforesaid, to the territorial line, and north of an east and west line drawn through the southerly extreme of Lake Michigan, running east as aforesaid to Lake Erie, to the aforesaid state, or dispose of it otherwise, in conformity to the fifth article of compact between the original states, and the people and states to be formed in the territory northwest of the river Ohio." 2 Stat. 173-174.

8. The constitution which was adopted by the State of Ohio on November 29, 1802 and thereafter submitted to the Congress declared in Article VII, section 6, that the limits and boundaries of the state were those prescribed in the Enabling Act of April 30, 1802, with the following proviso:

"*Provided always, and it is hereby fully understood and declared by this convention*, That if the southerly bend or extreme of Lake Michigan should extend so far south, that a line drawn due east from it should not intersect Lake Erie, or if it should intersect the said Lake Erie east of the mouth of the Miami River of the Lake, then, and in that case, with the assent of the Congress of the United States, the northern boundary of this State shall be established by, and extending to, a direct line, running from the southerly extremity of Lake Michigan to the most northerly cape of the Miami Bay, after intersecting the due-north line from the mouth of the Great Miami River as aforesaid; thence northeast to the territorial line, and by the said territorial line, to the Pennsylvania line." Thorpe, Federal and State Constitutions, vol. 5, page 290 (Washington, Government Printing Office, 1909).

9. By the Act of February 19, 1803, 2 Stat. 201, the Congress recognized that the State of Ohio had formed a constitution and state government pursuant to the Enabling Act of April 30, 1802, and had thereby become one of the United States of America. The Act of February 19, 1803 provided for the execution of the laws of the United States within the State of Ohio. It did not, however, in specific terms at that time approve or disapprove the northern boundary line contended for by Ohio as set out in the above quoted proviso to its constitution.

10. By section 1 of "An Act to divide the Indiana Territory into two separate governments", approved January 11, 1805, the Congress established Michigan Territory out of the northern part of the former Indiana Territory and defined its boundary as follows:

> "That from and after the thirtieth day of June next, all that part of the Indiana territory, which lies north of a line drawn east from the southerly bend or extreme of Lake Michigan, until it shall intersect Lake Erie, and east of a line drawn from the said southerly bend through the middle of said lake to its northern extremity, and thence due north to the northern boundary of the United States, shall, for the purpose of temporary government, constitute a separate territory, and be called Michigan." 2 Stat. 309.

11. On May 20, 1812, the Congress enacted "An Act to authorize the President of the United States to ascertain and designate certain boundaries", which provided, inter alia:

> ". . . That the surveyor general, under the direction of the President of the United States, be, and he is hereby authorized and required, (as soon as the consent of the Indians can be obtained,) to cause to be surveyed, marked and designated, so much of the western and northern boundaries of the state of Ohio, which have not already been ascertained, as divides said state from the territories of Indiana and Michi-

gan, agreeably to the boundaries as established by the act, entitled 'An act to enable the people of the eastern division of the territory northwest of the river Ohio to form a constitution and state government, and for the admission of such state into the Union on an equal footing with the original states, and for other purposes,' passed April thirtieth, one thousand eight hundred and two; and to cause to be made a plat or plan of so much of the boundary line as runs from the southerly extreme of Lake Michigan to Lake Erie, particularly noting the place where the said line intersects the margin of said lake, and to return the same when made to Congress . . ." 2 Stat. 741.

12. The surveys required by the Act of May 20, 1812 were not made immediately but Deputy Surveyor Benjamin Hough, about 1815, made solar observations to determine the latitude of the north cape of Miami Bay and transmitted the results to Surveyor General Edward Tiffin. These observations were made with a sextant and the latitude was found to be 41° 51′ 50″ North.

13. The Congress, in an appropriation act, approved April 16, 1816, 3 Stat. 277, 283, reauthorized the surveys which it had directed in 1812.

14. On August 22, 1816, at the direction of the President, Commissioner Josiah Meigs of the General Land Office directed Surveyor General Edward Tiffin to proceed with the survey agreeably to the Act of May 20, 1812.

15. On December 31, 1816 the Surveyor General engaged William Harris to make the required surveys.

16. During July and August 1817 William Harris surveyed and marked the lines. He ran the western boundary of Ohio, which was also the eastern boundary of Indiana, on a due north course. He then determined the latitude of the southern extreme of Lake Michigan and it was variously reported to be 41° 37′ 19″ or 41° 38′ 58″ North. By comparison with Hough's determination of the latitude of the north cape of Miami Bay, Harris concluded that the southern extreme of Lake Michigan was south of that cape.

Harris then ran a line due east from the point ascertained as the southern extremity of Lake Michigan until it intersected the due north line which he had run for the western boundary of Ohio. From this point of intersection, Harris continued the due north line twelve miles further, and set a temporary post. Commencing at this point, Harris ran a random traverse to the north cape of Miami Bay and calculated the course of a single line from the north cape to the southern extreme of Lake Michigan. He then started at the north cape of Miami Bay and ran this computed line, the bearing of which he reported to be S 87° 42′ W, to an intersection with the due north line previously run as the western boundary of Ohio. This intersection was found to be 5 miles, 24 chains, 64 links north of the intersection of the western boundary with the due east line which he had run from the southern extreme of Lake Michigan. The line thus run from the north cape of Miami Bay to the western boundary of Ohio is known as the Harris Line. Harris also found that a due east line from the southern extremity of Lake Michigan would strike Lake Erie 7 miles 49 chains south of the north cape of Miami Bay.

17. On June 24, 1818 Secretary of the Treasury William H. Crawford requested Commissioner Josiah Meigs of the General Land Office to adopt without delay the measures necessary for surveying and marking the northern boundary of the State of Ohio, in conformity with the provisions of the Act of May 20, 1812.

18. On June 29, 1818 the Commissioner of the General Land Office ordered Surveyor General Edward Tiffin to adopt measures necessary to make the survey, and to run the line to coincide with the parallel of latitude of Lake Michigan.

19. Thereupon, the Surveyor General entered into a contract with John A. Fulton and issued instructions for procedures to be followed in making the survey of the northern boundary of Ohio. He was to start at the point previously set by Harris where a due east line from the southern extreme of Lake Michigan intersected the western

boundary of Ohio. From there, he was instructed to survey and mark a line, due east, as nearly as it could be done with the compass, to the border of Lake Erie.

20. In October 1818 John A. Fulton made the survey as directed, which is known as the Fulton Line. That line reached Lake Erie at a point approximately twelve miles east of the mouth of the Miami (Maumee) River.

21. On March 7, 1820 Commissioner Meigs of the General Land Office transmitted copies of the Harris and Fulton plats to the Secretary of the Treasury.

22. On the same day the Secretary of the Treasury transmitted these plats to President Monroe for communication to Congress.

23. On March 8, 1820 President Monroe transmitted the plats to the Congress with the following message: "I transmit to Congress a report from the Secretary of the Treasury, which, with the accompanying documents, will shew that the act of the 20th May, 1812, respecting the northern and western boundaries of the State of Ohio, has been executed." Messages and Papers of the Presidents, Vol. II, page 637.

24. A reproduction of a map showing the relative positions of Lakes Erie and Michigan according to the Mitchell map of 1755 is annexed as Appendix A. This map appears in S. Doc. No. 211, 24th Cong., 1st sess., March 1, 1836.

25. On July 14, 1832 the Congress enacted "An Act to provide for the taking of certain observations preparatory to the adjustment of the northern boundary line of the state of Ohio," which provided:

> ". . . That the President of the United States cause to be ascertained, by accurate observation, the latitude and longitude of the southerly extreme of Lake Michigan; and that he cause to be ascertained, by like observation, the point on the Miami of the Lake which is due east therefrom, and also, the latitude and longitude of the most northerly cape of the Miami bay; also, that he cause to be ascertained, with

all practicable accuracy, the latitude and longitude of the most southerly point in the northern boundary line of the United States in Lake Erie; and also, the points at which a direct line drawn from the southerly extreme of Lake Michigan, to the most southerly point in said northern boundary line of the United States, will intersect the Miami river and bay; and also, that he cause to be ascertained by like observation, the point in the Mississippi which is due west from the southerly extreme of Lake Michigan; and that the said observations be made, and the result thereof returned, to the proper department within the current year." 4 Stat. 596.

26. After an interim report by Captain Andrew Talcott, who had been selected to make the observations required by the Act of July 14, 1832, the Act of March 2, 1833 extended the time for making return of the observations to December 31, 1835. 4 Stat. 619, 628-629.

27. In a report dated January 17, 1834 Captain Talcott stated the longitude of Turtle Island to be 83° 17′ 22.5″ West and of the north cape of Maumee Bay to be 83° 18′ 55.5″ West. The Maumee Bay, to which Captain Talcott referred, was the bay at the mouth of the river which had theretofore been called the Miami of the Lake but which by this time had come to be known as the Maumee.

In his report dated November 23, 1835, he stated, inter alia:

"1. The most southern extreme of lake Michigan is in latitude 41 deg. 37 min. 07 sec. N.

"The greatest difference, arising from a comparison of the observations, being 03.05 sec. and the greatest difference from the mean result, 01.17 sec.

. . .

"3. The north cape of the Maumee bay is in latitude 41 deg. 44 min. 07 sec. N.

"This result is obtained from a series of observations made on fourteen different stars, the greatest

difference, as before, being 02.56 sec. and the difference obtained, from a comparison with the mean result, being 01.50 sec.

"The observations from which the above latitude is deduced, were made on Turtle island; the difference of latitude having been determined trigonometrically.

"The latitude of the astronomical station on Turtle island, Maumee bay, is 41 deg. 45 min. 12 sec. N." House Doc. [Exec.] No. 7, 24th Cong., 1st sess. pp. 2-4, December 10, 1835.

28. On December 9, 1835 President Jackson transmitted to the Senate and the House of Representatives the reports and accompanying documents described in Finding 27.

29. On a map signed by Captain Talcott, entitled "Map exhibiting the position of the several lines connected with the settlement of the Ohio boundary question", which was transmitted to the Congress by President Jackson on January 11, 1836, the bearing of the line from the north cape of Maumee Bay to the south bend of Lake Michigan at its beginning at the north cape is given as 91° 01' 04.8" or S 88° 58' 55.2" W. A reproduction of this map is annexed as Appendix B. House Doc. [Exec.] No. 54, 24th Cong., 1st sess., January 12, 1836.

30. Turtle Island is a very small island located off the entrance to Maumee Bay. Map of Turtle Island-1885 [Mich. Exhibit No. 29].

31. In 1835 Captain Talcott located the north cape of Maumee Bay at a distance of 3,177.3 yards from the lighthouse on Turtle Island, in the direction of S 44° 52' 53.6" W. The north cape has long since been eroded at this point. A reproduction of a relevant portion of the map dated 1835 entitled "Ohio Boundary No. 2" signed by Captain Talcott, showing this area, which was also transmitted to the Congress by President Jackson on January 11, 1836, is annexed as Appendix C.

32. The approximate position of the lighthouse on Turtle Island used by Captain Talcott in making his ob-

servations can be determined today. An abandoned and ruined lighthouse is still visible on the island and it is probably no more than ten meters distant from the site of the original lighthouse. The lighthouse site in the center of the island is enclosed by a circular concrete seawall 190 feet in circumference.

33. After the submission of Captain Talcott's final report, Congress enacted the Act of June 15, 1836 "to establish the northern boundary line of the State of Ohio, and to provide for the admission of the State of Michigan into the Union upon the conditions therein expressed", and eight days later the Act of June 23, 1836, "to settle and establish the northern boundary line of the State of Ohio."

34. The Act of June 15, 1836, in sections 1 and 2, in pertinent part, provided:

> "[SEC. 1] . . . That the northern boundary line of the State of Ohio shall be established at, and shall be a direct line drawn from the southern extremity of Lake Michigan, to the most northerly cape of the Maumee (Miami) bay, after that line, so drawn, shall intersect the eastern boundary line of the State of Indiana; and from the said north cape of the said bay, northeast to the boundary line between the United States and the province of Upper Canada, in Lake Erie; and thence, with the said last mentioned line, to its intersection with the western line of the State of Pennsylvania.
>
> "SEC. 2 . . . That the constitution and State Government which the people of Michigan have formed for themselves be, and the same is hereby, accepted, ratified, and confirmed; and that the said State of Michigan shall be, and is hereby, declared to be one of the United States of America, and is hereby admitted into the Union upon an equal footing with the original States, in all respects whatsoever: *Provided always*, and this admission is upon the express condition, that the said State shall consist of and have jurisdiction over all the territory included within the following

boundaries, and over none other, to wit: Beginning at the point where the above described northern boundary of the State of Ohio intersects the eastern boundary of the State of Indiana, and running thence with the said boundary line of Ohio, as described in the first section of this act, until it intersects the boundary line between the United States and Canada, in Lake Erie; thence, with the said boundary line between the United States and Canada through the Detroit river, . . . thence, through the middle of Lake Michigan, to the northern boundary of the State of Indiana, as that line was established by the act of Congress of the nineteenth of April, eighteen hundred and sixteen; thence, due east, with the north boundary line of the said State of Indiana, to the northeast corner thereof; and thence, south, with the east boundary line of Indiana, to the place of beginning." 5 Stat. 49-50.

35. The Act of June 23, 1836 provided:

"That the northern boundary of the State of Ohio shall be established by, and extend to, a direct line running from the southern extremity of Lake Michigan to the most northerly cape of the Miami bay; thence, northeast, to the northern boundary line of the United States; thence, with said line, to the Pennsylvania line." 5 Stat. 56-57.

36. The conditions expressed in the Act of June 15, 1836 appeared in section 3 thereof and provided that Michigan could gain admission to the Union only upon the condition that the state, through a convention of elected delegates, assented to the boundaries set forth in section 2 of the Act, which included a southern boundary running with the northern boundary line of Ohio as set forth in the first section of the Act. On December 15, 1836 a convention of elected delegates of Michigan did assent to these boundaries and by the Act of January 26, 1837, the Congress admitted the State of Michigan into the Union. 5 Stat. 144.

37. At the time the Acts of June 15, 1836 and June 23, 1836 were enacted the noun "northeast" was defined by Webster's American Dictionary of the English Language as "The point between the north and east, at an equal distance from each."

38. A map in the official files of the United States Lake Survey, Corps of Engineers, United States Army, embodying the results of a survey made in 1844 of Maumee Bay under the direction of Captain W. G. Williams, of the United States Topographical Engineers, shows the boundary line between Ohio and Michigan as beginning a course of North 45° East at the point described on the map as "NORTH CAPE". The boundary line shown on the map following that course from North Cape bisects Turtle Island, and is shown as either passing through the lighthouse on this island or very near to it. A reproduction of a portion of this map is annexed as Appendix D.

39. In 1961 a geodetic determination by the United States Lake Survey of the position of the Turtle Island lighthouse showed it to be in latitude 41° 45' 08.740" North and longitude 83° 23' 28.213" West.

40. In 1915 the legislatures of the States of Michigan and Ohio each appropriated funds for the relocation, establishment and imperishable monumenting of their common boundary and commissioners were appointed by each state to carry out the joint project. S. S. Gannett of the United States Geological Survey was employed by the commissioners as engineer in charge of the work, which was completed in November 1915. It was essentially a retracement of the Harris survey. It was, however, not run as a perfectly straight line, but frequently followed existing monuments, fences, highways and other landmarks, when they were agreed to by adjacent landowners as being on the state line. The line was monumented from its beginning at the northwest corner of Ohio to Post 71 near the western shore of Maumee Bay. No monument was set at the north cape of the bay since the cape as it existed in 1836 had been washed away for many years. The land boundary as

thus established and monumented has been accepted by both states.

41. From the report of Engineer Gannett to the joint commissioners, dated November 30, 1915, it appears that the easternmost monument set on the boundary line, Post 71, was set in swampy ground about 900 feet west of the shore of Maumee Bay. That monument was set in latitude 41° 43′ 56.63″ N and longitude 83° 27′ 16.97″ W. The next monument to the west is Post 70 which was set in latitude 41° 43′ 55.78″ N and longitude 83° 27′ 47.17″ W. From Post 70 to Post 71 the true bearing is N 87° 49′ 44″ E and the distance 2,291.2 feet. The next monument to the west of Post 70 is Post 69 which was set in latitude 41° 43′ 54.63″ N and longitude 83° 28′ 27.59″ W. From Post 69 to Post 70 the true bearing is N 87° 49′ 34″ E and the distance 3,066.8 feet. Report of Commissioners on Retracement and Permanent Monumenting of the Michigan-Ohio Boundary, July 1, 1916, pages 81-82.

The foregoing geodetic positions of Posts 71, 70 and 69 were, obviously, not determined with reference to the presently current North American datum of 1927. If such a determination of the positions of these fixed monuments should be needed in connection with the determination with reference to the North American datum of 1927 of the geodetic position of the north cape of Maumee Bay as it was in 1836, it can readily be made by the appropriate agency of the United States government.

42. A joint resolution of the legislature of Ohio "Relative to the boundary line between the two states of Ohio and Michigan in Lake Erie," approved June 8, 1933, provided:

> "Whereas, Uncertainty has existed concerning the boundary between the states of Ohio and Michigan in Lake Erie, due to the omission of this portion of the boundary on some maps and its incorrect position on others, and
>
> "Whereas, The easterly terminal monument of the Ohio-Michigan land-boundary line set in 1817

by Andrew Harris has disappeared, due to the washing away of North Cape at the place where the monument originally stood, and

"Whereas, The earliest United States lake survey charts of the region show that the aforesaid terminal monument was at or near the intersection of the land-line between the two states and a line drawn south forty-five degrees west (S 45° W) through the center of Turtle island which is located at latitude 41° 45' 08.8" and longitude 83° 23' 28.8" according to primary triangulation of the United States lake survey published in 1882, and

"Whereas, The center part of the island was preserved by a circular concrete sea wall about 190 feet in diameter by the U.S. lighthouse service, which wall is still standing; therefore,

"*Be it resolved by the General Assembly of the State of Ohio,* That with the concurrence of the legislature of Michigan, the boundary line between the two states in Lake Erie shall be a line passing through the center of the aforesaid circular wall and bearing south forty-five degrees west (S 45° W) therefrom until it shall intersect the land-line between the two states as marked and monumented by them in 1915; and that from the aforesaid center of the circular wall the boundary in Lake Erie shall extend north forty-five degrees east (N 45° E) until it shall intersect the international boundary between the United States and Canada, it being understood that all bearings herein referred to shall be measured from a true meridian through the center of the aforesaid circular wall on Turtle island." 115 Laws of Ohio 685 (1933).

43. Senate Concurrent Resolution No. 15 "Relative to the boundary line between the two states of Ohio and Michigan in Lake Erie," adopted by the Senate of Michigan on March 6, 1945 (Senate Journal, 1945, p. 432) and by the House of Representatives of that state on March 22, 1945 (House Journal, 1945, p. 807), provided:

"Whereas, Uncertainty has existed concerning the boundary between the states of Ohio and Michigan in Lake Erie, due to the omission of this portion of the boundary on some maps and its incorrect position on others; and

"Whereas, The easterly terminal monument of the Ohio-Michigan land-boundary line set in 1817 by Andrew Harris has disappeared, due to the washing away of North Cape at the place where the monument originally stood; and

"Whereas, The earliest United States lake survey charts of the region show that the aforesaid terminal monument was at or near the intersection of the land-line between the two states and a line drawn south forty-five degrees west (S 45° W) through the center of Turtle island which is located at latitude 41° 45′ 08.8″ and longitude 83° 23′ 28.8″ according to primary triangulation of the United States lake survey published in 1882; and

"Whereas, the center part of the island was preserved by a circular concrete sea wall about 190 feet in diameter by the U.S. lighthouse service, which wall is still standing; now therefore be it

"Resolved by the Senate (the House of Representatives concurring), That the boundary line between the states of Ohio and Michigan in Lake Erie shall be a line passing through the center of the aforesaid circular wall and bearing south forty-five degrees west (S 45° W) therefrom until it shall intersect the land-line between the two states as marked and monumented by them in 1915; and that from the aforesaid center of the circular wall the boundary in Lake Erie shall extend north forty-five degrees east (N 45° E) until it shall intersect the international boundary between the United States and Canada, it being understood that all bearings herein referred to shall be measured from a true meridian through the center of the aforesaid circular wall on Turtle island." Michigan Senate Journal, 1945, page 291.

44. House Concurrent Resolution No. 38 adopted by the House of Representatives of Michigan on May 13, 1947 (House Journal, 1947, p. 1170) and by the Senate of that state on May 20, 1947 (Senate Journal, 1947, p. 1124), provided:

"Whereas, In the 1945 regular session of the legislature of Michigan adopted Senate Concurrent Resolution No. 15 relative to the boundary line between the two states of Ohio and Michigan in Lake Erie; and

"Whereas, Said concurrent resolution was presented to the legislature as a part of a proposal to determine the area of the entire state by inclusion of water areas within the total and without any other significance; and

"Whereas, Upon subsequent investigation it became apparent that an area of about 70 square miles in Lake Erie was involved in the matter then presented and some question as to the jurisdiction over said water existed between the state of Ohio and the state of Michigan; and

"Whereas, The particular area in question became a matter of dispute because of early surveys and maps purporting to determine the boundary line between the states in Lake Erie and showing for a great many years that the said boundary ran from a terminus in Lake Erie from a nonexistent boundary marker, which was formerly Grassy Point, to a turning point in the international boundary line between the United States and Canada, said line being at an angle more acute than 45 degrees; and

"Whereas, The state of Ohio, by a concurrent resolution adopted several years ago attempted to resolve the stated uncertainty concerning the boundary line by adopting a point on Turtle Island in Lake Erie as a basis for a line at 45° to intersect the land boundary line between the states and to intersect the International boundary line thereby conforming more

closely to the language of the original and enabling acts and the constitutional provisions regarding the boundary line between the two states; and

"Whereas, It is apparent that for many years the state of Michigan has exercised jurisdiction over the area in question and may have established by adverse possession and by consent and acquiescence of the state of Ohio a good title thereto; and

"Whereas, Since the action of the two legislatures by concurrent resolution is not sufficient in the law governing the relationship of States to convey title or change boundary lines, no settlement of any such dispute can be reached by such method; and

"Whereas, If a settlement is to be reached it will, of necessity, require statutory enactment by the two states and should be the subject matter of an investigation by a joint boundary commission; now therefore be it

"Resolved by the House of Representatives (the Senate concurring), That the State of Michigan nor any rights of said state concerning the boundary line in Lake Erie between the state of Ohio and the state of Michigan were not affected by the adoption of Senate Concurrent Resolution No. 15 of the 1945 session of the Michigan legislature; and be it further

"Resolved, That insofar as said concurrent resolution No. 15 may in any manner be interpreted as determinative of the position of the state of Michigan with regard to the said boundary in Lake Erie, said concurrent resolution is hereby rescinded; and be it further

"Resolved, That the Governor of the state of Michigan is hereby requested to confer with the Governor of the state of Ohio concerning the subject matter hereof with a view to requesting the legislatures to establish a boundary commission to investigate and to report to the legislatures the rights of the respective states within Lake Erie; and be it further

"Resolved, That a copy of thicurrent resolution be sent to the Governor of tate." Michigan House Journal, 1947, pages 957-95

45. There was no evidence presethat any action was taken by the two states to establi joint boundary commission as suggested in House Crent Resolution No. 38 adopted by the legislature of Man in 1947.

46. Annexed hereto as Appendix a reproduction of the map of the Erie Quadrangle e topographical map of the United States published le United States Geological Survey in 1952, with the aboration of the State Highway Commissioner of Mic n, which shows the boundary between Ohio and Mic n as running in an apparently due northeast directiough the center of Turtle Island.

47. The location of the north c of Maumee Bay which Harris in 1817 determined to e easterly terminus of the Ohio-Michigan land boun as it existed in 1836, as closely as it can be now asc ed, is the point now in the bed of Maumee Bay wher ne drawn South 45° West through the center of the ng circular concrete sea wall on Turtle Island int ts a line drawn North 87° 49′ 44″ East from Post the easternmost existing monument on the Ohio-Mic n land boundary line, both bearings being measured fr true meridian.

DISCUSSION

Introductory Statement

The foregoing findings of fact include findings with respect to all the facts which I regard as relevant as well as findings with respect to facts which, while not strictly relevant, may serve to illumine the background of the controversy. I have not included findings with respect to certain other facts requested by the parties because either they did not seem to me to be established by the evidence or were not relevant to the narrow issue involved in the case.

That issue, as I understand it, is as to the meaning and effect to be given to the language of the Act of June 15, 1836, 5 Stat. 49, which defined the northern boundary of the State of Ohio and directed that it shcuild be the boundary between the States of Ohio and Michigan. The language of the Act of June 23, 1836, 5 Stat. 56, which also defined that boundary, is in substance the same as that of the earlier Act and need not be separately considered for that reason and also because the boundary as defined by the Act of June 15, 1836 was the one which was specifically accepted by the State of Michigan as a condition precedent to its admission to the Union, as required by that Act, and which is, therefore, binding on that state.

The Act of June 15, 1836 defined the boundary in dispute as "a direct line drawn from the southern extremity of Lake Michigan, to the most northerly cape of the Maumee (Miami) bay, after that line, so drawn, shall intersect the eastern boundary line of the State of Indiana; and from the said north cape of the said bay, northeast to the boundary line between the United States and the province of Upper Canada, in Lake Erie; . . ." [Finding 34].

Background—The Ohio-Michigan Land Boundary

A brief account of the origin of the controversy which the Acts of 1836 sought to settle may be helpful. When the

Ordinance of 1787 was adopted organizing the Northwest Territory no accurate surveys of the western country had been made and it was believed that the southern extremity of Lake Michigan lay considerably north of what was afterward ascertained to be its true location. Mitchell's map, published in 1755, which was before the Congress in 1787, 1802 and 1805, shows a due east line from the southern bend of Lake Michigan intersecting the Detroit River somewhat north of its mouth in Lake Erie. [Appendix A]. Thus, when the Congress by the Act of April 30, 1802 authorized the inhabitants of that part of the Northwest Territory which was destined by the Ordinance of 1787 to become the "eastern State", to form a constitution and state government, the northern boundary of the new state was described as "an east and west line, drawn through the southerly extreme of Lake Michigan, running east after intersecting the due north line aforesaid, from the mouth of the Great Miami [the western boundary of the new state], until it shall intersect Lake Erie, or the territorial line, and thence with the same through Lake Erie to the Pennsylvania line." [Finding 7]. And in 1805 when the Congress created Michigan Territory out of the northern portion of Indiana Territory it included all of the latter territory which lay north "of a line drawn east from the southerly bend or extreme of Lake Michigan, until it shall intersect Lake Erie" [Finding 10].

However, doubt as to the accuracy of the then understood location of the southern extremity of Lake Michigan had arisen as early as 1802. This doubt actuated the constitutional convention of Ohio in that year to include in the new state constitution a proviso that if the southern extremity of Lake Michigan should be found to extend so far south that a line drawn due east from it would not intersect Lake Erie or would intersect that lake east of the mouth of the Miami [Maumee] River, then with the assent of the Congress, "the northern boundary of this State shall be established by, and extending to, a direct line, running from the southern extremity of Lake Michigan to the most

northerly cape of the Miami [Maumee] Bay, after intersecting the due-north line from the mouth of the Great Miami River as aforesaid [the western boundary of the state]; thence northeast to the territorial line, and by the said territorial line, to the Pennsylvania line." [Finding 8].

The fact is, as was determined by a survey made by Fulton in 1818, that a line drawn due east from the southern extremity of Lake Michigan would intersect the south shore of Lake Erie about twelve miles east of the mouth of the Maumee River. This line became known as the Fulton Line [Finding 20; Appendix B]. A survey by Harris in 1817 had established the line called for by the proviso of the Ohio Constitution of 1802 from the southern extremity of Lake Michigan to the most northerly cape of Maumee Bay. At the eastern border of Indiana the Harris Line was found to be a little more than five miles north of the Fulton Line and at its eastern end at the north cape of Maumee Bay the Harris Line was found to be more than seven miles north of the Fulton Line [Finding 16]. The long narrow segment of land lying between the two lines, which included Maumee Bay, the mouth of the Maumee River and the port city of Toledo [Appendix B], became the subject of dispute between the State of Ohio and the Territory of Michigan, a dispute which was ultimately settled in favor of Ohio by the Congress, with the consent of Michigan, by the passage of the Act of June 15, 1836.

The Ohio-Michigan Boundary in Lake Erie

The Act of June 15, 1836 in addition to defining and settling the land boundary between Ohio and Michigan from the Indiana line to the north cape of Maumee Bay also determined the boundary between the two states through the waters of Lake Erie easterly of the north cape of Maumee Bay. This it did by the language "and from the said north cape of the said bay, northeast to the boundary line between the United States and the province of Upper Canada, in Lake Erie." [Finding 34]. The land

portion of the line was early established and accepted, having been defined as a direct line between two observable physical features which served as monuments, namely, the southern extremity of Lake Michigan and the most northerly cape of Maumee Bay. But since the Lake Erie portion of the line was defined in the statute merely by its bearing, "northeast," from a single monument, the most northerly cape of Maumee Bay, to an undefined point in another line, the international boundary line in Lake Erie, its exact location was never settled between the states. The question apparently remained dormant until about 1933 when the State of Ohio enacted the joint resolution of June 8, 1933, to which I shall later refer, which expressly described this portion of the boundary as having a bearing of North 45° East [Finding 42]. Michigan now seeks by the present suit a determination of the precise bearing of the line which is called for by the statutory word "northeast."

It is the contention of Michigan that the statute does not call for an angle in the boundary line at the north cape and that "northeast" as there used means in the same northeasterly direction as the land line, that is, a continuation or extension of the land line on a course having the same bearing as that line. Ohio, on the other hand, contends that the statutory language indicates that the boundary takes a new course at the north cape and that the bearing of that course, defined as "northeast", must, in the absence of qualifying language, be taken to be due northeast, that is, North 45° East.

It is true, of course, that the bearing of the land portion of the boundary, at its easternmost monument, Post 71, is slightly northeasterly, being in fact North 87° 49′ 44″ East, which is 2° 10′ 16″ north of east. [Finding 41]. Accordingly, if the statute had defined the line as running from the north cape of Maumee Bay in a northeasterly direction on a continuation of the same course as the land line to the international boundary line there would be force in Michigan's contention. But there is no such qualifying language in the Act of 1836.

Michigan also argues that certain correspondence and committee reports in the period of controversy before the passage of the Act of 1836 support its contention that a continuation of the water boundary on the same course as the land line was contemplated. But if the words of a statute are clear and free from ambiguity we may not look to legislative history to create an ambiguity where none exists. United States v. Missouri Pacific Railroad Company, 1929, 278 U.S. 269, 277-278; Wilbur v. United States, 1931, 284 U.S. 231, 237; United States v. Shreveport Grain & Elevator Company, 1932, 287 U.S. 77, 83; Helvering v. City Bank Farmers Trust Co., 1935, 296 U.S. 85, 89; United States v. Public Utilities Commission, 1953, 345 U.S. 295, 315. Here the language of the statute seems to me to be perfectly clear and unambiguous and to contemplate an angle in the boundary line and the beginning of a new course at the north cape of Maumee Bay. To me the words "and from the said north cape of the said bay, northeast" can have no other rational meaning.

This leaves only the question as to what is the bearing of the new course starting at the north cape. The statutory answer is that it is to be "northeast". In the absence of any qualifying words, and there are none, this can only mean due northeast, that is, toward a point between north and east which is equally distant from each. This is the definition given in Webster's American Dictionary of the English language which was current in 1836. [Finding 37]. In surveying terms it means North 45° East. This is the only meaning which will give that precision to the statutory language which it must have if it is to effectuate the Congressional purpose in enacting it. That the word "northeast" as used in the statute was contemporaneously understood to have this meaning is indicated by the fact that Captain Williams, the Government engineer who surveyed the area in 1844, indicated on his map of the area a boundary line between Ohio and Michigan running North 45° East from the north cape of Maumee Bay. [Finding 38; Appendix D]. It is also suggested by the fact that

later maps have likewise indicated the boundary in the lake as running North 45° East. Thus, the map of the Erie Quadrangle of the topographical map of the United States published by the United States Geological Survey in 1952 with the collaboration of the State Highway Commissioner of Michigan [Finding 46; Appendix E], shows the boundary between the States of Ohio and Michigan as following a true northeast course in Lake Erie.

Michigan argues that the statutory term "northeast" should be construed to mean in a northeasterly direction, that is, the bearing of a line running to a point somewhere between north and east. But such a bearing would be so indefinite as to be impossible to follow unless a terminal monument at its northeasterly end was also specified in the statute. In answer to this point Michigan asserts that such a terminal monument was so specified and it points in this connection to the statutory language which states that the line shall be drawn from the north cape of Maumee Bay northeast "to the boundary line between the United States and the province of Upper Canada, in Lake Erie." This argument I cannot accept. A monument in order to serve as the terminal point of a boundary line must itself be located at a single fixed point. Obviously a line, which necessarily passes through an indefinite number of points, may not fulfill this office, even though ever so clearly defined and located.

The practical result of giving the statutory word "northeast" its normal meaning seems to me to speak in favor of following that course. For a due northeast boundary line will very roughly bisect the angle formed in the western end of Lake Erie by the coasts of Michigan and Ohio, respectively, and will allot to each state portions of Lake Erie opposite its coastline. The line claimed by Michigan, on the other hand, would allot to that state a long triangular segment of Lake Erie opposite the Ohio shore and far removed from the Michigan shore which would throw West Sister Island into Michigan and would extend eastwardly to an apex less than one and one-half miles

north of Ohio's North Bass Island. [Mich. Exhibit No. 41] It is impossible for me to believe that the Congress in 1836 intended such a bizarre result as this.

I conclude that the Act of June 15, 1836 calls for a boundary line drawn from the north cape of Maumee Bay, as it existed in 1836, through Lake Erie to the international boundary line on a course having a bearing North 45° East.

The Recovery of the 1836 Location of the North Cape of Maumee Bay

The north cape of Maumee Bay to which the Act of June 15, 1836 referred was, obviously, the cape as it existed at that time. Admittedly, it has eroded a considerable distance to the north since 1836. The problem remains, therefore, to establish the point in the bed of Maumee Bay which was the location of the north cape in that year. We are greatly helped in solving this problem by the presence in Lake Erie off the mouth of Maumee Bay of a small island known as Turtle Island on which a lighthouse was formerly maintained by the government. [Findings 30 and 32].

Captain Talcott in 1835 located the north cape of Maumee Bay at a distance of 3,177.3 yards from the lighthouse on Turtle Island in the direction South 44° 52′ 53.6″ West. [Finding 31; Appendix C]. A little later, in 1844, Captain Williams made a survey which showed that a line drawn North 45° East from the north cape of Maumee Bay would pass through or very near to the lighthouse on Turtle Island [Finding 38; Appendix D]. That lighthouse has long since been abandoned but its probable location can still be determined. In addition, there is a circular concrete seawall about 190 feet in diameter which was built by the United States Lighthouse Service and which enclosed the lighthouse area in the center of the island. [Finding 32].

The Ohio-Michigan land boundary was monumented in 1915 under the auspices of a joint commission, retracing as nearly as possible the Harris survey. [Finding 40]. The land boundary thus monumented as it approaches Post 71, the easternmost monument on the land line, follows a course having the bearing North 87° 49′ 44″ East. [Finding 41]. That same line extended eastwardly from Post 71 across Maumee Bay should pass through the 1836 location of the north cape of Maumee Bay, since that was the original eastern terminus of the land boundary line. A line drawn South 45° West from the presumed location of the former lighthouse in the center of the circular concrete seawall on Turtle Island should also pass through the 1836 location of the north cape of Maumee Bay. Accordingly, the location of the north cape may be recovered today by determining the point of intersection of those two lines.

It is true that the land boundary, as monumented in 1915, may vary slightly from the original Harris line. Likewise, Talcott and Williams vary by 7′ 6.4″ in their determinations of the bearing of a line drawn from the former lighthouse on Turtle Island to the north cape of Maumee Bay as it then existed. But these variations, the latter of which may well be the result of minor erosion taking place between 1835 and 1844, are, in my judgment, so small as to be inconsequential in view of the impossibility of determining today the precise points on the north cape which were used by Harris, Talcott and Williams, respectively, in making their surveys. Indeed, the distance between the points on the north cape sighted by Talcott and Williams, respectively, I compute at less than 22 feet. I believe it to be of much more significance, from a practical standpoint, that a line drawn from the north cape of Maumee Bay, as it was located by Captain Williams in 1844, on a course having a bearing of North 45° East would pass through the site of the old lighthouse in approximately the center of the seawall on Turtle Island, thus establishing the center of the existing seawall on that

island as a permanent monument on the boundary line between the two states in Lake Erie.

This fortunate circumstance will very greatly facilitate not only the demarcation, but also the continuous recognition of the location, of that boundary. I am the more persuaded of its appropriateness by the fact that the legislatures of Ohio and Michigan, in resolutions passed in 1933 and 1945, respectively, declared their boundary in Lake Erie to be a line passing through the center of the circular concrete seawall on the center part of Turtle Island and bearing South 45° West therefrom until it should intersect the land line between the two states as marked and monumented by them in 1915 [i.e., the former location of the north cape of Maumee Bay]; and that from the aforesaid center of the circular wall the boundary in Lake Erie should extend North 45° East until it intersected the international boundary line between the United States and Canada. [Findings 42 and 43]. It is true that the resolution by Michigan to this effect in 1945 was a concurrent resolution which, as such, did not have the force of law and that it was rescinded by the Michigan legislature in 1947. [Finding 44]. However, although admittedly not binding on Michigan as a settlement of the present controversy, these resolutions indicate the understanding of both states that if the boundary between them in Lake Erie should be determined to run due northeast, that is, North 45° East, from the former location of the north cape of Maumee Bay, it would pass through the center of Turtle Island. The map of the Erie Quadrangle of the topographical map of the United States published by the United States Geological Survey, with collaboration by the State Highway Commissioner of Michigan [Appendix E], to which I have already referred, affords further evidence of such recognition. For it shows the boundary line between the two states in Lake Erie as passing through the center of Turtle Island.

CONCLUSIONS

I accordingly conclude:

1. In accord with Finding 47, that the north cape of Maumee Bay was located in 1836 at the point in that bay where a line drawn North 87° 49′ 44″ East from Post 71 on the land boundary line between the States of Ohio and Michigan intersects a line drawn South 45° West from the center of the existing circular concrete seawall on Turtle Island, both bearings being measured from a true meridian.

2. That the boundary line between the States of Ohio and Michigan in Lake Erie follows a line drawn from the point in Maumee Bay where the north cape of that bay was located in 1836, as described in Finding 47, on a course having a bearing North 45° East measured from a true meridian, passing over the center of the existing circular concrete seawall on Turtle Island and continuing on the same course through the lake to the point where it intersects the boundary line between the United States and Canada.

3. The State of Michigan should bear the costs of this suit, including the expenses of the special master.

RECOMMENDED DECREE

In accord with my findings and conclusions, I recommend the entry of a decree in the following form:

It is now Ordered, Adjudged, and Decreed as follows:

1. The boundary line between the States of Ohio and Michigan in Lake Erie follows a line drawn from the point in Maumee Bay where the north cape of that bay was located in 1836 on a course having a bearing North 45° East measured from a true meridian, passing over the center of the existing circular concrete seawall on Turtle Island and continuing on the same course through the lake to the point where it intersects the boundary line between the United States and Canada.

2. In 1836 the north cape of Maumee Bay was located at the point in that bay where a line drawn North 87° 49′ 44″ East from Post 71 on the land boundary line between the States of Ohio and Michigan intersects a line drawn South 45° West from the center of the existing circular concrete seawall on Turtle Island, both bearings being measured from a true meridian.

3. The costs of this suit, including the expenses of the special master, shall be borne by the State of Michigan.

The foregoing report is respectfully submitted.

Philadelphia, Pa.
June 30, 1971

ALBERT B. MARIS,
Special Master

FOLLOWING FOLDOUTS/EXHIBITS ARE TOO LARGE TO FILM

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DEC 23 197

E. ROBERT SEAVER, C

IN THE

SUPREME COURT OF THE UNITED STATES

October Term, 1966

No. 30, Original

STATE OF MICHIGAN,

Plaintiff,

—VS—

STATE OF OHIO,

Defendant.

EXCEPTIONS TO REPORT AND RECOMMENDATIONS OF SPECIAL MASTER

FRANK J. KELLEY
Attorney General

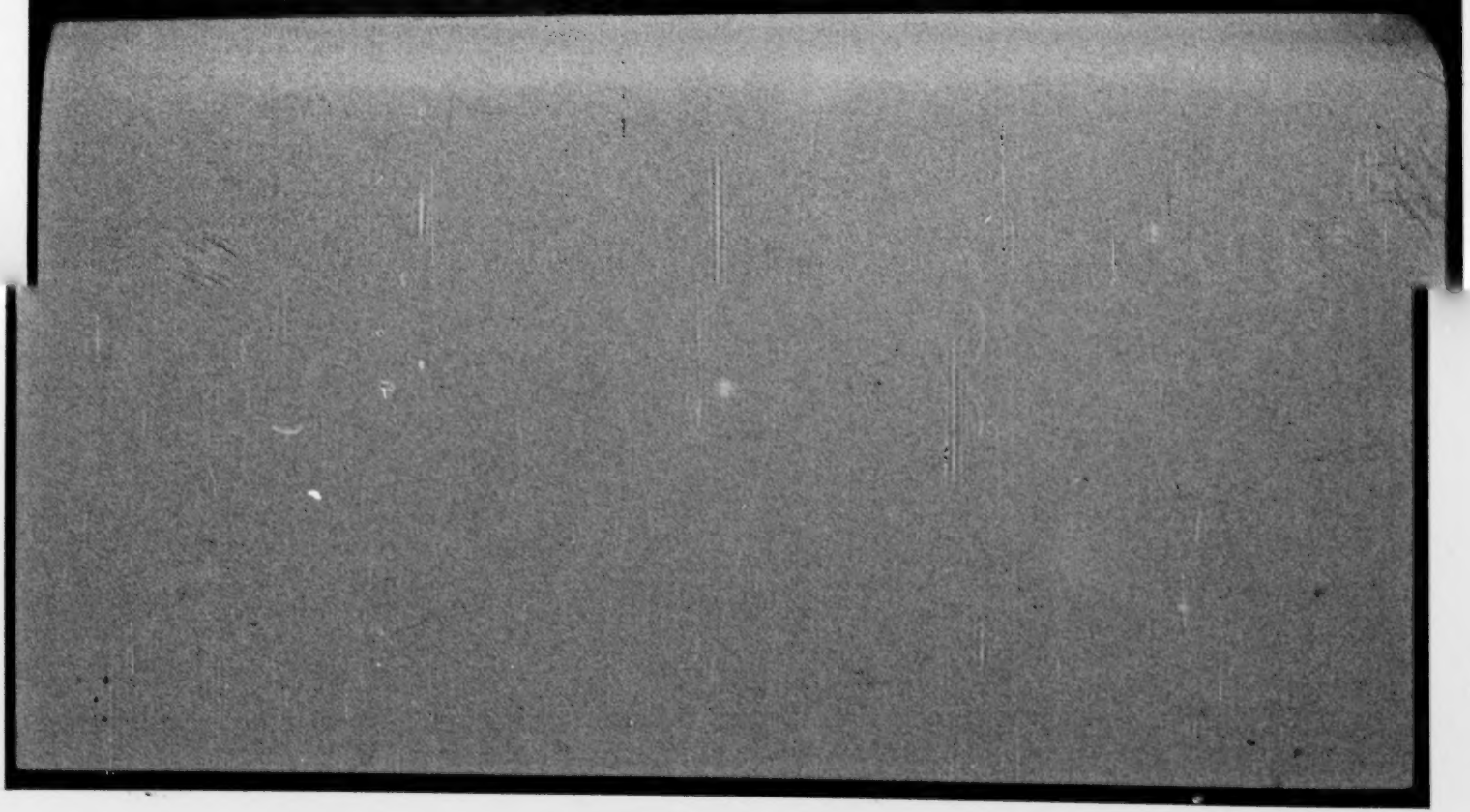
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IN THE

SUPREME COURT OF THE UNITED STATES

October Term, 1966

No. 30, Original

STATE OF MICHIGAN,

Plaintiff,

-vs-

STATE OF OHIO,

Defendant.

EXCEPTIONS TO REPORT AND RECOMMENDATIONS OF SPECIAL MASTER

TO THE HONORABLE
THE SUPREME COURT OF THE UNITED STATES

The State of Michigan, Plaintiff, by Frank J. Kelley, its Attorney General, excepts to the Report of Albert B. Maris, *Special Master,* dated June 30, 1971, and the Recommended Decree therein included, filed in the above entitled action, in the particular respects and as to the specific points as follows:

I

That the Special Master erred in failing to recommend a definition of the boundary line between Point 71, a granite post which is the easterly terminus monumenting the land boundary between Michigan and Ohio, the easterly terminus of the land monumentation of the Michigan-Ohio boundary, and the proper relocation of the north cape of the Maumee

Bay as it existed in 1836. This point was pleaded and proved by the State of Michigan. In its brief and argument in support of the findings by the State of Michigan, the State of Michigan requested a boundary line to be adopted in its conclusion and relief desired. The Special Master erred by failing to grant paragraph numbered forty-four, Michigan Finding of Fact:

> "44. From the Post 71 to the original 1835 position of the north cape of Maumee Bay, there is an undefined gap which can be located by the use of accurate instruments. This arc may be different from the arc which extends from the south bend of Lake Michigan to the north cape of Maumee Bay and on to the international boundary line. Parts I, II and Appendix of Report on Retracement and Permanent Monumenting of the Michigan-Ohio Boundary, 1915, (Mich. Exh. 30), Tr 63—71."

II

The Special Master erred in Recommended Decree, paragraph 2:

> "2. In 1836 the north cape of Maumee Bay was located at the point in that bay where a line drawn north 87° 49′ 44″ East from Post 71 on the land boundary line between the States of Ohio and Michigan intersects a line drawn South 45° West from the center of the existing circular concrete seawall on Turtle Island, both bearings being measured from a true meridian."

and by failing to grant Michigan's requested Findings of Fact Nos. 40, 41, 43 and 44:

"40. In 1961, a geodetic determination by the United States Lake Survey for the position of Turtle Island lighthouse was:

Latitude (North): 41° 45′ 08″.740

Longitude (West): 83° 23′ 28″.213

From this position applying the data of Captain Andrew Talcott, the north cape of Maumee Bay can be computed. The computation results in the north cape of Maumee Bay being defined as:

Latitude (North): 41° 44′ 02″.004

Longitude (West): 88° 24′ 56″.923

These locations are listed in the transcript, Tr 55.

"41. Pursuant to the statutory direction, Captain Andrew Talcott used accurate instruments, made multiple observations on numerous stars and made a careful mathematical analysis of the results. He then concluded that the latitudes of the several points that he was required to find would be true to the nearest second. Talcott's Report on January 17, 1834, (Mich. Exh. 24); Talcott's Report November 23, 1835, Rept. No. 380, p. 75, 24th Cong., (Mich. Exh. 8), Tr 44, 49.

"43. In 1915, the legislatures of both Michigan and Ohio appropriated funds for the survey of the common land boundary and formed a joint commission. With the uncertainty caused by the disappearance of all original monuments, there was uneasiness among the citizens, especially in the vicinity of Toledo, where land was rapidly assuming a much higher value. Because of the disappearance of the monuments and the inade-

quacy of funds, it was agreed that the line would not necessarily be straight from end to end, although the surveyors would try to relocate the original staked line; existing monuments, fences, highways or other marks agreed to by land owners on both sides as being the state line would constitute monuments for the state line and these monuments would be acceptable to the Commission to constitute the state line. There is no direct evidence of recovery of any point staked out by the Harris survey. The eastern terminus of the north cape was declared as washed away and the western terminus was established through the ancestry of an old rotted stake near some pilings. No effort was made to see, if the line were extended, whether it would be a tangent to the southern extreme of Lake Michigan. Because of the desire to have this a practical line and agreeable to the citizens of both states, it is subject to error with regard to the Acts of Congress of 1836. The commission established that the boundary line with the eastern terminus located at Post 71 on the west shore of Maumee Bay is approximately two miles from the original position of the north cape which was called for by the Harris line. It would not appear at all certain that the continuation of the line from Post 70 to Post 71 would necessarily strike the north cape of Maumee Bay as determined by Captain Andrew Talcott and as computed today. Tr 64, 65 et seq.

"44. From the Post 71 to the original 1835 position of the north cape of Maumee Bay, there is an undefined gap which can be located by the use of accurate instruments. This arc may be different from the arc which extends from the south bend of Lake Michigan to the north cape of Maumee Bay and on to the international boundary line. Parts I, II and Appendix of Report on Retracement and Permanent Monumenting of the

Michigan-Ohio Boundary, 1915, (Mich. Exh. 30), Tr 63—71."

Finding of Fact requested by Michigan is stated in full under paragraph I.

III

The Special Master erred in his Finding No. 41. There is absolutely no evidence that a line drawn at Post 71 with a true bearing of S 87° 49′ 44″ W would ever strike the southerly extreme of Lake Michigan at present, in 1916 or in 1817:

> "41. From the report of Engineer Gannett to the joint commissioners, dated November 30, 1915, it appears that the easternmost monument set on the boundary line, Post 71, was set in swampy ground about 900 feet west of the shore of Maumee Bay. That monument was set in latitude 41° 43′ 56.63″ N and longitude 83° 27′ 16.97″ W. The next monument to the west is Post 70 which was set in latitude 41° 43′ 55.78″ N and longitude 83° 27′ 47.17″ W. From Post 70 to Post 71 the true bearing is N 87° 49′ 44″ E and the distance 2,291.2 feet. The next monument to the west of Post 70 is Post 69 which was set in latitude 41° 43′ 54.63″ N and longitude 83° 28′ 27.59″ W. From Post 69 to Post 70 the true bearing is N 87° 49′ 34″ E and the distance 3,066.8 feet. Report of Commissioners on Retracement and Permanent Monumenting of the Michigan-Ohio Boundary, July 1, 1916, pages 81-82.

The foregoing geodetic positions of Posts 71, 70 and 69 were, obviously, not determined with reference to the presently current North American datum of 1927.

If such a determination of the positions of these fixed monuments should be needed in connection with the determination with reference to the North American datum of 1927 of the geodetic position of the north cape of Maumee Bay as it was in 1836, it can readily be made by the appropriate agency of the United States government."

From the Special Master's Finding No. 41, the Special Master must have found Finding No. 47, on which paragraph two of the Recommended Decree is based:

"47. The location of the north cape of Maumee Bay which Harris in 1817 determined to be the easterly terminus of the Ohio-Michigan land boundary as it existed in 1836, as closely as it can be now ascertained, is the point now in the bed of Maumee Bay where a line drawn South 45° West through the center of the existing circular concrete sea wall on Turtle Island intersects a line drawn North 87° 49′ 44″ East from Post 71, the easternmost existing monument on the Ohio-Michigan land boundary line, both bearings being measured from a true meridian."

Further, the Special Master erred in failing to grant Michigan's Finding Nos. 53, 54, 55 and pertinent portions of 56:

"53. In view of the lack of original monuments, it was agreed by the joint group that:

'(1) As nearly as may be line to be relocated as originally staked out on the ground, and not necessarily run as a straight line from end to end.

'(2) Existing monuments, fences, highways or other marks, when agreed to by land owners on both

sides as being on the State line, are to be so accepted. (p. 61)'

"The line was, in fact, run between points established in accordance with these stated principles. Tr 65

"• • •

"54. This survey was official . . . and the following points should be noted with regard to its influence on the present proceedings:

1. It seems to have been based on the assumption that the Harris line truly represented the line intended to be defined by Congress in the act providing for the admission of Michigan into the Union.

2. There is no direct evidence of recovery of any point of the Harris survey. The report states (p. 55) that 'The eastern terminus of the line, originally the most northerly cape of Maumee Bay, has been washed away for many years and did not furnish a definite starting point; neither were there other permanent or semi-permanent marks near the eastern terminus . . .' Tr 66"

"55. There is serious doubt that the 1915 survey was, in any accurate sense, an actual retracement of the Harris line.

(a) 'There is no direct evidence of recovery of any point of the Harris survey. The report states (page 55) that "The eastern terminus of the line, originally the most northerly cape of Maumee Bay, has been washed away for many years and did not furnish a definite starting point; neither were there

other permanent or semi-permanent marks near the eastern terminus . . .' . . .

(b) There is no reference in the 1915 report to any effort made to ascertain if the line actually run tended, if extended westwardly, to terminate in a tangent to the southern extreme of Lake Michigan.

"56. . . . On Map No. 9 of the 1915 report a dotted line extends eastwardly from the plotted position of Post 71, with the note 'Toward original position of northernmost cape of Maumee Bay.' Since the original position of the northernmost cape was neither physically recovered nor dimensionally referenced by the 1915 survey, this note is subject to error . . ."

IV

The Special Master erred by including in paragraph I of the Recommended Decree the monument Turtle Island. Neither the Michigan Enabling Act, Act of June 15, 1836, c. 99, 5 Stat. 49, nor the Act to settle and establish the northern boundary line of Ohio, Act of June 23, 1836, c. 117, 5 Stat. 56, contained any reference to Turtle Island.

V

The Special Master erred in not finding the pertinent portion of Michigan's Request for Finding of Fact No. 34. Such pertinent portions are quoted as follows:

"34. In the 20th Congress, the House Committee on Territories . . ., under date of March 18, 1828, stated:

'From the time the State of Ohio was admitted into the Union, . . . it seems to have been supposed that the existing maps of that part of the country might be . . . erroneous . . .'

'Your committee recommended to the House, that . . . before any definitive legislation be had upon the subject, namely: The latitude of the southerly extreme of Lake Michigan, and where the same parallel of latitude crosses the Miami . . . River; and also, where it intersects the shore of Lake Erie; the latitude of the south point of North Cape, in Miami [Maumee] bay and the latitude 42° 30′ N., where it intersects the western shore of Lake Michigan. . . .

'It is also proposed that the intermediate lines between certain points shall be traced and marked. . . . these lines shall be run without the aid of the compass; . . .

'And as science and skill alone will not do, without the aid of the best instruments, it is proposed to authorize the President of the United States to employ two or more of the Topographical Engineers to perform the work.'

". . . the Ohio legislature presented a memorial. . . . The date of the memorial is March 12, 1831. . . . Among other things, the memorial deals directly with the bearing across Lake Erie to its intersection with the northern boundary line of the United States. . . ."

'. . . This act is respectfully submitted to the consideration of Congress, and with it, the suggestion, that the Territorial line is still the northern

boundary of Ohio, in terms, after intersecting it—not by a due east and west line, (for that is impossible) but—by an *easterly and westerly line, drawn through the southerly extreme of Lake Michigan, intersecting the Territorial line at its most southerly approximation in Lake Erie.'*

'The understanding and intention of the people of Ohio have been uniform on this subject. . . . the northern boundary shall be established as far north as the most northerly Cape of Miami Bay.'

VI

The Special Master erred in the Recommended Decree, paragraph one:

"1. The boundary line between the States of Ohio and Michigan in Lake Erie follows a line drawn from the point in Maumee Bay where the north cape of that bay was located in 1836 on a course having a bearing North 45° East measured from a true meridian, passing over the center of the existing circular concrete seawall on Turtle Island and continuing on the same course through the lake to the point where it intersects the boundary line between the United States and Canada."

VII

The Special Master erred in his declaration beginning on page 27:

"The Act of June 15, 1836 in addition to defining and settling the land boundary between Ohio and

Michigan from the Indiana line to the north cape of Maumee Bay also determined the boundary between the two states through the waters of Lake Erie easterly of the north cape of Maumee Bay. This it did by the language 'and from the said north cape of the said bay, northeast to the boundary line between the United States and the province of Upper Canada, in Lake Erie.' [Finding 34]. The land portion of the line was early established and accepted, having been defined as a direct line between two observable physical features which served as monuments, namely, the southern extremity of Lake Michigan and the most northerly cape of Maumee Bay. But since the Lake Erie portion of the line was defined in the statute merely by its bearing, 'northeast,' from a single monument, the most northerly cape of Maumee Bay, to an undefined point in another line, the international boundary line in Lake Erie, its exact location was never settled between the states. The question apparently remained dormant until about 1933 when the State of Ohio enacted the joint resolution of June 8, 1933, to which I shall later refer, which expressly described this portion of the boundary as having a bearing of North 45° East [Finding 42]. Michigan now seeks by the present suit a determination of the precise bearing of the line which is called for by the statutory word 'northeast.' "

Further, the Special Master erred in his Finding No. 46, and his discussion about said finding on page 29, et seq, of the report of the Special Master:

"... It is also suggested by the fact that later maps have likewise indicated the boundary is the lake as running North 45° East. Thus, the map of the Erie Quadrangle of the topographical map of the United States published by United States Geological Survey

in 1952 with the collaboration of the State Highway Commission of Michigan [Finding No. 46; Appendix E], shows the boundary between the States of Ohio and Michigan as following a true northeast course in Lake Erie."

VIII

The Special Master erred in his Finding No. 38, page 18, Special Master's Report. This finding states:

"38. A map in the official files of the United States Lake Survey, Corps of Engineers, United States Army, embodying the results of a survey made in 1844 of Maumee Bay under the direction of Captain W. G. Williams, of the United States Topographical Engineers, shows the boundary line between Ohio and Michigan as beginning a course of North 45° East at the point described on the map as "NORTH CAPE". The boundary line shown on the map following that course from North Cape bisects Turtle Island, and is shown as either passing through the lighthouse on this island or very near to it. A reproduction of a portion of this map is annexed as Appendix D."

In addition, the Special Master erred in failing to find the requested Findings of Fact of the State of Michigan, Nos. 45, 47, 48 and 49:

"45. The Ohio Governor's representative designated to inspect the topographic survey made by the United States Geological Survey in cooperation with the State indicates the uncertainty of the line as it proceeds from his assumed north cape to Turning Point 160 of the international boundary line. The bearing given on the survey was N 63° 45′ E and Professor

Sherman, the Governor's representative, concluded it should be a nautical 'northeast', that is, N 45° E. Volume 4 of the Ohio Topographic Survey, 1933. The maps were compiled in 1910 and 1911, and from the evidence, no one complained about an incorrect line until 1933. (Mich. Exh. 9)

"47. To make a direct connection from the North Cape of Maumee Bay to the international boundary line the azimuth is 268° 58′ 55″.2 at the 1835 position of the North Cape of Maumee Bay. Map examining the position of several boundary lines connected with the settlement of the Ohio boundary question (Mich. Exh. 18). Tr 57

"48. The extension of the line from the North Cape as computed from the Talcott figures of 1835 to the international boundary line results in the intersection of the line from the south bend of Lake Michigan through the North Cape of Maumee Bay northeast to the international boundary at latitude (North) 41° 44′ 25″.220, longitude (West) 82° 48′ 43″.659 (Act of Congress, June 15, 1836, Mich. Exh. 10 and Rept. No. 380, Mich. Exh. 8, page 132) Tr 57

"49. Captain Talcott used accurate instruments, made multiple observations on numerous stars and finally made a careful mathematical analysis of his results before he concluded that '. . . the latitudes of the several points are true to the nearest second.' With these observations at hand, he calculated 'The arc joining the South bend of Lake Michigan, with the North Cape of the Maumee Bay' and found its azimuth at the South bend of Lake Michigan to be 266° 24′ 32″.6, whereas it was 268° 58′ 55″.2 at the North Cape. Tr 61."

RELIEF

Wherefore, it is prayed that recommendations of the Special Master be rejected or modified in accordance with exceptions set forth above.

Respectfully submitted,

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